
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2011; month=10; day=12; hr=13; min=54; sec=2; ms=36;]

Validated By CRFValidator v 1.0.3

Application No: 10573821 Version No: 3.0

Input Set:

Output Set:

Started: 2011-10-07 14:54:25.373

Finished: 2011-10-07 14:54:29.072

Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 699 ms

Total Warnings: 38

Total Errors: 0

No. of SeqIDs Defined: 41

Actual SeqID Count: 41

Error code		Error Description									
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(4)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(9)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(18)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(19)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(20)

Input Set:

Output Set:

Started: 2011-10-07 14:54:25.373 **Finished:** 2011-10-07 14:54:29.072

Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 699 ms

Total Warnings: 38
Total Errors: 0

No. of SeqIDs Defined: 41

Actual SeqID Count: 41

Error code Error Description

This error has occured more than 20 times, will not be displayed

SEQUENCE LISTING

```
<110> OKUNO, KAZUAKI
     YABUTA, MASAYUKI
<120> POLYPEPTIDE CLEAVAGE METHOD USING OMPT PROTEASE VARIANT
<130> 47259-5001-00-US (223490)
<140> 10573821
<141> 2006-03-28
<150> PCT/JP04/014704
<151> 2004-09-29
<150> JP 2003-342183
<151> 2003-09-30
<160> 41
<170> PatentIn version 3.5
<210> 1
<211> 184
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
    polypeptide
<400> 1
Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
         20
                       2.5
Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
      35
                   40
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
   50
                      55
                                       60
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
65 70 75 80
Asp Thr Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
```

90

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 100 105 110 Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Gly 130 135 140 Ser Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr 150 155 Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile 165 170 175 Ala Trp Leu Val Lys Gly Arg Gly 180 <210> 2 <211> 184 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic polypeptide Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 1 5 10 15 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 20 25 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 45 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 55 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala

75

90 95

Asp Thr Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr

70

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 105 Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 125 Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala 130 135 140 Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr 150 155 Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile 165 170 Ala Trp Leu Val Lys Gly Arg Gly 180 <210> 3 <211> 184 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic polypeptide <400> 3 Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 5 10 15 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 20 25 30 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 40 35 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 50 55 60 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 70 75 65

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr

90

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 105 Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Arg Ala 130 135 140 Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr 150 155 160 145 Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile 170 Ala Trp Leu Val Lys Gly Arg Gly 180 <210> 4 <211> 184 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic polypeptide <400> 4 Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 10 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 25 20 30 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 45 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 50 55

Asp Thr Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 65 70 75 80 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 100 105 110

Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 125

Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Ala 130 135 140

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile 165 170 175

Ala Trp Leu Val Lys Gly Arg Gly 180

<210> 5

<211> 162

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 5

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 50 55 60

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 65 70 75 80

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr 85 90 95 Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 100 105 110 Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 125 Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Phe Val Pro Ile 135 Phe Thr Tyr Gly Glu Leu Gln Arg Met Gln Glu Lys Glu Arg Asn Lys 150 155 160 145 Gly Gln <210> 6 <211> 165 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic polypeptide Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 1 5 10 15 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 20 25 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 45 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 55 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 75 65 70

Asp Thr Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro 105 Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 115 120 125 Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Phe 130 135 140 Val Pro Ile Phe Thr Tyr Gly Glu Leu Gln Arg Met Gln Glu Lys Glu 150 155 Arg Asn Lys Gly Gln 165 <210> 7 <211> 167 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic polypeptide <400> 7 Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 10 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 25 20 30 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 45 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 55 50 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 65 70 75 80 Asp Thr Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr

90

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro

105

110

85

Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln 120 Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Ser 135 Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys Arg 145 150 155 Arg Pro Val Lys Val Tyr Pro 165 <210> 8 <211> 176 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic polypeptide <400> 8 Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp 10 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro 20 25 30 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro 35 40 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe 55 50 60 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala 65 70 75 80 Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr 90 85 Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro

Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln

100 105 110

115 120 125

Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Cys 130 135 Gly Asn Leu Ser Thr Cys Met Leu Gly Thr Tyr Thr Gln Asp Phe Asn 150 155 Lys Phe His Thr Phe Pro Gln Thr Ala Ile Gly Val Gly Ala Pro Gly 170 165 <210> 9 <211> 5 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic peptide <400> 9 Leu Tyr Lys Arg His <210> 10 <211> 4 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic peptide <400> 10 Ala Arg Arg Ala <210> 11 <211> 5 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic peptide <400> 11 Arg Arg Ala Arg

```
<210> 12
<211> 7
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 12
Asp Ala Arg Arg Arg Ala Arg
                5
<210> 13
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 13
Arg Arg Ala Arg
<210> 14
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 14
Ala Ala Arg Arg Ala Arg Ala Ala
<210> 15
<211> 6
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 15
Arg Arg Ala Arg Ala
                5
```

```
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 16
Asp Ala Arg Arg Ala Arg Ala
              5
<210> 17
<211> 6
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 17
Tyr Gly Gly Phe Leu Arg
<210> 18
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 18
Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Ala Ala
               5
                                   10
                                                      15
<210> 19
<211> 15
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 19
Ala Ala Ala Ala Ala Ala Arg Ala Arg Arg Ala Ala Ala Ala
                                   10
```

```
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 20
Ala Ala Ala Ala Ala Arg Ala Arg Arg Ala Ala Ala Ala
                                   10
<210> 21
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 21
Ala Ala Ala Ala Arg Ala Ala Arg Arg Ala Ala Ala Ala
               5
                                   10
                                                       15
<210> 22
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 22
Ala Ala Ala Ala Arg Ala Ala Ala Arg Arg Ala Ala Ala
                                   10
<210> 23
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 23
Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala Ala
               5
                                   10
<210> 24
<211> 15
```

<212> PRT

```
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 24
Ala Ala Arg Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala Ala
               5
                                   10
<210> 25
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 25
Ala Arg Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala
               5
                                   10
<210> 26
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 26
Arg Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala Ala
```